Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**Unit 2 Overview**

**UNIT 2 TEST DATE: Friday, November 20**

**2.1 Conditionals** (*if/then statements, converse, inverse, etc.*)

**2.2 Truth Value** (*always, sometimes, or never true? counter examples!)*

**2.3 Algebraic Proofs**

**2.4 Congruence versus Equality** (*What is the difference? How is notation different?*)

**2.5 Segment Addition** (*using segment addition to solve problems involving variables… midpoint included!*)

**2.6 Constructions** (*parallel lines and perpendicular bisectors)*

**2.7 Coordinate Geometry** (*finding midpoint and distance given two points on the coordinate plane*)

**2.8 Vertical Angles and Linear Pairs**

**2.9 Parallel Lines Cut by a Transversal** (*angle pairs – same side interior, etc.*)

**2.10 Assumptions in Geometric Diagrams and Justifying Conclusions**

**2.11 Angle Proofs**

**2.12 Parallel Line Proofs**

Creating your study guide…

* 2.1
  + Find definitions of conditional, converse, inverse, hypothesis and conclusion
  + Find examples of each for practice.
* 2.2
  + Find examples of “truth value”. Be sure you can determine whether a conditional, converse, **and** an inverse are always, sometimes, or never true. You will need to be able to explain a counter example if the statement is **not always** true.
* 2.3
  + Find the properties of equality used in algebraic proofs (subtraction property of equality, substitution property of equality, etc.). You do not need be able to recall definitions but you will need to know when to use them.
  + Find examples of algebraic proofs to practice.
* 2.4
  + Find your notes on congruence versus equality, which highlight the differences between the two. They will also provide a refresher as to the correct notation for each.
  + Be sure you understand that congruence and equality also have a lot in common.
* 2.5
  + Find examples of using the segment addition postulate to solve problems involving variables.
  + Review all of the relationships you can determine when given the **midpoint** of a line segment.
  + Find examples of using **midpoint** to solve problems involving variables.
* 2.6
  + Know some of the important features of a parallel line and a perpendicular bisector construction.
* 2.7
  + Identify the formulas for finding the midpoint and distance between two points on the coordinate plane.
  + Understand that the concept of midpoint comes from finding **averages** and that the concepts of distance comes from the Pythagorean Theorem
  + Find examples of finding midpoint and distance given coordinate points to practice.
* 2.8
  + Be able to identify vertical angles and linear pairs.
  + Find examples of problems involving variables and vertical angles or linear pairs.
  + Know that vertical angles are congruent and linear pairs are supplementary!
* 2.9
  + Be able to identify pairs of angles created by a transversal.
  + Be able to justify whether or not lines are parallel given information about one or more of these angle pairs in a diagram.
  + If two parallel lines are cut by a transversal, know which angles are congruent and which are supplementary.
* 2.10
  + Be able to identify assumptions you **can** and **cannot** make from a geometric diagram.
* 2.11
  + Be able to fill in missing statements and reasons for a proof involving angles. Find examples of these proofs to practice. (*In class, we will discuss which proofs are most important to focus on.*)
* 2.12
  + Be able to fill in missing statements and reasons for a proof involving parallel lines. Find examples of these proofs to practice. (*In class, we will discuss which proofs are most important to focus on.*)

**YOU WILL BE ABLE TO USE YOUR YELLOW SHEET, SO BRING THAT WITH YOU TO CLASS ON TEST DAY! If you need another copy, you need to ask Ms. Rapoport outside of class.**